

Remarks

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

The rejection of claims 1, 10, 12, 13, 15, 16, 18-23, 24, 29, 30, 31, 34, and 42-44 under 35 § U.S.C. 102(e) as anticipated by U.S. Patent No. 6,391,558 to Henkens et al. (“Henkens”) is respectfully traversed.

Henkens relates to an electrochemical detection system which specifically detects selected nucleic acid segments. The system utilizes biological probes such as nucleic acid or peptide nucleic acid probes which are complementary to and specifically hybridize with selected nucleic acid segments in order to generate a measurable current when an amperometric potential is applied. Henkens discloses that a DNA or RNA segment can be “captured” at a working or test electrode surface by a probe which hybridizes with the segment. The hybridization of the capture probe with the target nucleic acid segment puts the electroactive label in the target nucleic acid in close proximity to the electrode, such that the captured target can be electrochemically detected by applying an amperometric potential across a working electrode and a reference electrode to generate a current which then flows between the working electrode and one other electrode. Measurement of such a current indicates the presence of the target nucleic acid segment.

However, Henkens does not in any way teach or suggest using reagents for depositing a conductive substance onto a complex formed between the recognition moiety and the target, where the conductive substance forms a conductive bridge between the at least two of the electrodes, as set forth in claims 1-9, 18-24, 29-33, 38-40, and 42-44 of the present application. Henkens also fails to teach or suggest using reagents comprising monomers of a conducting polymer which deposit onto or bind to a complex formed between the recognition moiety and the target, where the polymer forms a conductive bridge between the at least two of the electrodes, as set forth in claims 10-13, 15-16, and 34 of the present application. More specifically, Henkens does not teach or suggest a system for assaying one or more targets in a sample comprising “reagents for depositing a conductive substance onto a complex formed between said recognition moiety and said target, wherein the conductive substance, when deposited onto the complex, forms a conductive bridge between the at least two of the electrodes” as required by claim 1 of the present application. Nor does Henkens teach or suggest a system for assaying one or more targets in a sample comprising “reagents

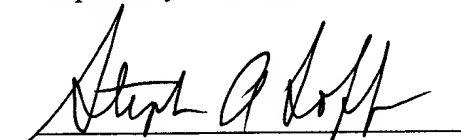
comprising monomers of a conducting polymer which deposit onto or bind to a complex formed between said recognition moiety and said target, and for growing a conductive polymer from deposited or bound monomers, such that upon polymerization of the monomers a conducting bridge between the at least two electrodes is formed” as required by claim 10. Henkens also does not in any way teach or suggest a method for assaying one or more targets in a sample comprising “contacting said assay device with reagents for depositing a conductive substance onto the complex formed between said recognition moiety and said target, such that the conductive substance deposits onto the complex and forms a conductive bridge between said at least two electrodes” as required by claim 24 of the present application. Nor does Henkens teach or suggest a kit for use in assaying one or more targets in a sample comprising “reagents for depositing a conductive substance onto a complex formed between said recognition moiety and said target, wherein the conductive substance, when deposited onto the complex, forms a conductive bridge between the at least two of the electrodes” as required by claim 31, or “reagents comprising monomers of a conducting polymer which can bind to the target or to a complex formed between said recognition moiety and said target, such that upon polymerization of the monomers a conducting bridge between the at least two electrodes of a set is formed” as required by claim 34. Since Henkens does not teach or suggest the claimed system, method, and kit that use such reagents, the rejection based on this reference is improper and should be withdrawn.

The objection to claims 2-9, 11, 32, 33, 38, 45, and 46 as depending on a rejected claim is obviated in view of the above remarks.

In view of all of the foregoing, applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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